|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **3GLCE** | **ITEM NUMBER** | **ALL**  **STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **DECIMAL FRACTION OPERATIONS** | | | | | | | |
| **USING COMMON DENOMINATORS** | | | | | | | |
| **N.FL.05.14 *Add and subtract fractions with unlike denominators through 12 and/or 100, using the common denominator that is the product of the denominators of the 2 fractions, e.g.,3/8* + 5/10 *: use 80 as the common denominator.\**** | **9** | **37** | **47** | **6** | **26** | **40** | **34%** |
| **10** | **31** | **35** | **19** | **24** | **35** |
| **APPLIED PROBLEMS WITH FRACTIONS** | | | | | | | |
| **N.FL.05.18 *Use mathematical statements to represent an applied situation involving addition and subtraction of fractions.\**** | **11** | **33** | **33** | **31** | **40** | **56** | **32%** |
| **12** | **31** | **27** | **44** | **40** | **49** |
| **N.MR.05.19 *Solve contextual problems that involve finding sums and differences of fractions with unlike denominators using knowledge of equivalent fractions.\**** | **13** | **30** | **35** | **13** | **27** | **52** | **33%** |
| **14** | **36** | **41** | **19** | **25** | **41** |
| **N.FL.05.20 *Solve applied problems involving fractions and decimals; include rounding of answers and checking reasonableness.\**** | **23** | **82** | **84** | **75** | **85** | **92** | **61%** |
| **24** | **40** | **45** | **25** | **44** | **62** |
| **N.MR.05.21 *Solve for the unknown in equations such as* ¼ + x = 7/2 .\*** | **59** | **55** | **63** | **31** | **43** | **51** | **55%** |
| **WHOLE-NUMBER DIVISION** | | | | | | | |
| **DIVISION OF WHOLE NUMBERS** | | | | | | | |
| **N.MR.05.01 Understand the meaning of division of whole numbers with and without remainders; relate division to fractions and to repeated subtraction.** | **1** | **36** | **45** | **6** | **42** | **51** | **51%** |
| **2** | **66** | **63** | **75** | **73** | **73** |
| **N.MR.05.02 Relate division of whole numbers with remainders to the form a = bq + r, e.g., 34 ÷ 5 = 6 r 4, so 5 • 6 + 4 = 34; note remainder (4) is less than divisor (5).** | **55** | **27** | **31** | **13** | **30** | **34** | **27%** |
| **N.MR.05.03 Write mathematical statements involving division for given situations.** | **3** | **60** | **67** | **38** | **54** | **75** | **54%** |
| **4** | **48** | **61** | **6** | **53** | **72** |
| **GLCE** | **ITEM NUMBER** | **ALL STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **WHOLE-NUMBER DIVISION (CONTINUED)** | | | | | | | |
| **MULTIPLY AND DIVIDE WHOLES** | | | | | | | |
| **N.FL.05.04 Multiply a multi-digit number by a two-digit number; recognize and be able to explain common computational errors such as not accounting for place value.** | **5** | **75** | **75** | **75** | **70** | **83** | **69%** |
| **6** | **63** | **71** | **38** | **62** | **75** |
| ***N.FL.05.05 Solve applied problems involving multiplication and division of whole numbers.\**** | **25** | **75** | **80** | **56** | **73** | **89** | **50%** |
| **26** | **24** | **20** | **38** | **21** | **34** |
| **N.FL.05.06 Divide fluently up to a four-digit number by a two-digit number.** | **48** | **43** | **47** | **31** | **52** | **65** | **43%** |
| **PRIME FACTORIZATION OF WHOLES** | | | | | | | |
| **N.MR.05.07 *Find the prime factorization of numbers from 2 through 50, express in exponential notation, e.g., 24 = 23 x 31, and understand that every whole number greater than 1 is either prime or can be expressed as a product of primes.\**** | **27** | **64** | **75** | **31** | **42** | **52** | **57%** |
| **28** | **49** | **57** | **25** | **31** | **44** |
| **MULTIPLY, DIVIDE BY POWERS OF 10** | | | | | | | |
| **N.MR.05.15 Multiply a whole number by powers of 10: 0.01, 0.1, 1, 10, 100, 1,000; and identify patterns.** | **57** | **54** | **59** | **38** | **46** | **52** | **54%** |
| **N.MR.05.17 Multiply one-digit and two-digit whole numbers by decimals up to two decimal places.** | **58** | **61** | **69** | **38** | **62** | **68** | **61%** |
| **CONVERT UNITS WITHIN SYSTEM** | | | | | | | |
| **M.UN.05.01 Recognize the equivalence of 1 liter, 1,000 ml and 1,000 cm3 and include**  **conversions among liters, milliliters, and cubic centimeters.** | **45** | **45** | **53** | **19** | **42** | **50** | **45%** |
| **M.UN.05.02 Know the units of measure of volume: cubic centimeter, cubic meter, cubic inches, cubic feet, cubic yards, and use their abbreviations (cm3, m3, in3, ft3, yd3).** | **46** | **51** | **55** | **38** | **42** | **55** | **31%** |
| **M.UN.05.03 Compare the relative sizes of one cubic inch to one cubic foot, and one**  **cubic centimeter to one cubic meter.** | **47** | **31** | **35** | **19** | **33** | **60** | **31%** |
| **M.UN.05.04 Convert measurements of length, weight, area, volume, and time within a given system using easily manipulated numbers.** | **7** | **22** | **24** | **19** | **24** | **41** | **24%** |
| **8** | **25** | **31** | **6** | **27** | **27** |
| **GLCE** | **ITEM NUMBER** | **ALL STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **WHOLE-NUMBER DIVISION (CONTINUED)** | | | | | | | |
| **FIND MEAN AND MODE** | | | | | | | |
| **D.AN.05.03 Given a set of data, find and interpret the mean (using the concept of fair share) and mode** | **29** | **79** | **88** | **50** | **70** | **77** | **56%** |
| **30** | **33** | **41** | **6** | **27** | **41** |
| **D.AN.05.04 Solve multi-step problems involving means.** | **39** | **15** | **14** | **19** | **21** | **28** | **15%** |
| **PROPERTIES OF 2D SHAPED, ANGLES** | | | | | | | |
| **AREA FORMULAS OF SHAPES** | | | | | | | |
| **M.PS.05.05 Represent relationships between areas of rectangles, triangles, and parallelograms using models.** | **15** | **34** | **33** | **38** | **34** | **55** | **30%** |
| **16** | **25** | **24** | **31** | **24** | **38** |
| **M.TE.05.06 Understand and know how to use the area formula of a triangle: A = 1/2 bh (where b is length of the base and h is the height), and represent using models and manipulatives.** | **31** | **40** | **39** | **44** | **48** | **54** | **29%** |
| **32** | **18** | **14** | **31** | **24** | **39** |
| **M.TE.05.07 Understand and know how to use the area formula for a parallelogram:**  **A = bh, and represent using models and manipulatives.** | **33** | **42** | **47** | **25** | **44** | **51** | **37%** |
| **34** | **31** | **29** | **38** | **27** | **43** |
| **MEANING OF ANGLES** | | | | | | | |
| **G.TR.05.01 Associate an angle with a certain amount of turning; know that angles are measured in degrees; understand that 90°, 180°, 270°, and 360° are associated respectively, with 1/4, 1/2, and 3/4, and full turns.** | **43** | **61** | **67** | **44** | **53** | **73** | **61%** |
| **G.GS.05.02 Measure angles with a protractor and classify them as acute, right, obtuse, or straight.** | **17** | **60** | **65** | **44** | **64** | **84** | **41%** |
| **18** | **21** | **18** | **31** | **41** | **63** |
| **G.GS.05.03 Identify and name angles on a straight line and vertical angles.** | **42** | **40** | **49** | **13** | **42** | **56** | **40%** |
| **GLCE** | **ITEM NUMBER** | **ALL STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **PROPERTIES OF 2D SHAPED, ANGLES (CONTINUED)** | | | | | | | |
|  | | | | | | | |
| **G.GS.05.04 Find unknown angles in problems involving angles on a straight line, angles surrounding a point, and vertical angles.** | **19** | **40** | **41** | **38** | **42** | **58** | **37%** |
| **20** | **34** | **35** | **31** | **27** | **38** |
| **G.GS.05.05 Know that angles on a straight line add up to 180° and angles surrounding a point add up to 360°; justify informally by “surrounding” a point with angles.** | **21** | **24** | **25** | **19** | **32** | **41** | **38%** |
| **22** | **51** | **51** | **50** | **44** | **61** |
| **G.GS.05.06 Understand why the sum of the interior angles of a triangle is 180° and the sum of the interior angles of a quadrilateral is 360°, and use these properties to solve problems.** | **35** | **30** | **25** | **44** | **32** | **37** | **23%** |
| **36** | **16** | **16** | **19** | **23** | **33** |
| **SOLVE PROBLEMS ABOUT SHAPES** | | | | | | | |
| **G.GS.05.07 Find unknown angles and sides using the properties of: triangles, including right, isosceles, and equilateral triangles; parallelograms, including rectangles and rhombuses; and trapezoids.** | **37** | **61** | **67** | **44** | **53** | **51** | **52%** |
| **38** | **42** | **45** | **31** | **32** | **46** |
| **CONNECTIONS** | | | | | | | |
| **MEANING OF DECIMALS, PERCENTS** | | | | | | | |
| **N.ME.05.08 Understand the relative magnitude of ones, tenths, and hundredths and the relationship of each place value to the place to its right, e.g., one is 10 tenths, one tenth is 10 hundredths.** | **49** | **10** | **12** | **6** | **12** | **16** | **10%** |
| **N.ME.05.09 Understand percentages as parts out of 100, use % notation, and express a part of a whole as a percentage.** | **50** | **34** | **41** | **13** | **28** | **40** | **34%** |
| **EQUIVALENT FRACTIONS, DIVISION** | | | | | | | |
| **N.ME.05.10 Understand a fraction as a statement of division, e.g., 2 ÷ 3 =2/3 *,* using simple fractions and pictures to represent.** | **51** | **54** | **57** | **44** | **64** | **66** | **54%** |
| **N.ME.05.11 *Given two fractions, e.g.,* 1/2 *and* 3/4 *, express them as fractions with a common denominator, but not necessarily a least common denominator, e.g.,* 1/2 = 4/8 *and* 3/4 = 6/8 ; *use denominators less than 12 or factors of 100.\**** | **52** | **33** | **33** | **31** | **34** | **51** | **33%** |
| **GLCE** | **ITEM NUMBER** | **ALL STUDENTS** | **AESWD** | **SWD** | **DPS** | **MICHIGAN** | **AVERAGE**  **PERCENT**  **PROFICIENT** |
| **CONNECTIONS (CONTINUED)** | | | | | | | |
| **MULTIPLY AND DIVIDE FRACTIONS** | | | | | | | |
| ***N.ME.05.12 Find the product of two unit fractions with small denominators using an area model.\**** | **53** | **72** | **76** | **56** | **75** | **76** | **72%** |
| ***N.MR.05.13 Divide a fraction by a whole number and a whole number by a fraction, using simple unit fractions.\**** | **56** | **22** | **22** | **25** | **27** | **24** | **22%** |
| **RATIOS, EQUIVALENCES** | | | | | | | |
| **N.MR.05.22 Express fractions and decimals as percentages and vice versa.** | **60** | **58** | **65** | **38** | **45** | **49** | **58%** |
| **N.ME.05.23 Express ratios in several ways given applied situations, e.g., 3 cups to 5 people, 3 : 5, 3/5; recognize and find equivalent ratios.** | **54** | **60** | **61** | **56** | **59** | **61** | **60%** |
| **CONCEPT OF VULUME** | | | | | | | |
| **M.PS.05.10 Solve applied problems about the volumes of rectangular prisms using**  **multiplication and division and using the appropriate units.** | **44** | **22** | **25** | **13** | **16** | **29** | **22%** |
| **MAKE AND INTERPRET LINE GRAPHS** | | | | | | | |
| **D.RE.05.01 Read and interpret line graphs, and solve problems based on line graphs, e.g., distance-time graphs, and problems with two or three line graphs on same axes, comparing different data.** | **40** | **22** | **22** | **25** | **27** | **53** | **22%** |
| **D.RE.05.02 Construct line graphs from tables of data; include axis labels and scale.** | **41** | **58** | **65** | **38** | **62** | **77** | **58%** |